DECK BUILDERS OTTAWA

Guards & Railings

When a deck needs a guard under the 2024 Ontario Building Code, guard heights, the 100 mm opening rule and Ontario's no-climb rule between 140 mm and 900 mm

4 Expert Answers from Deck IQ

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Q1

Guard height on a deck 10 m up in Ontario?

At 10 metres up, the 2024 Ontario Building Code requires a guard on any open side where the drop exceeds 600 mm within 1.2 m of the edge. For the deck itself the guard is not less than 1 070 mm high, and Ontario adds a separate rule for exterior stairs and landings more than 10 m above adjacent ground: their guards must be not less than 1 500 mm.

The standard exterior guard height for a deck serving not more than one dwelling unit is 900 mm where the walking surface is not more than 1 800 mm above finished ground, and 1 070 mm in all other cases. At 10 m the deck is well past 1 800 mm, so the 1 070 mm figure applies to the deck's guards.

On infill, the Ontario version of the 2024 Building Code replaces the national rule with a stricter one: every required guard must be designed so that no member, attachment or opening between 140 mm and 900 mm above the walking surface will facilitate climbing. Horizontal rails and cable runs between those heights can facilitate climbing, which is what that rule targets. Confirm any infill design with the City's Building Code Services before committing to it.

For loads, the Code sets a top load of 0.5 kN per metre or a concentrated load of 1.0 kN at any point, and 1.5 kN per metre vertically, for exterior guards serving not more than two dwelling units. Ontario deems guards built to MMAH Supplementary Standard SB-7 to meet the load requirement. A glass, aluminum or other manufactured guard system outside the Code's prescriptive rules requires the manufacturer's information and attachment details with the permit application.

A deck with a walking surface more than 600 mm above adjacent grade and attached to or adjacent to the house requires a building permit from the City of Ottawa. At 10 m that is not in question. The permit drawings must include elevations showing guard and handrail information, and the framing plan must show the deck-to-house connection. The City requires three inspections: Excavation or Foundations before backfill, Framing at completion of structural framing and guards, and a Final inspection. The homeowner or builder books each one 48 hours in advance.

Given the height, work through the guard posts and their connections with a designer or engineer before the permit drawings are finalised.

Because this deck is well above grade and attached to a building, getting the permit application in front of the City's Building Code Services is the immediate next step.

Q2

Is horizontal cable railing allowed on an Ontario deck?

Horizontal cable infill on a required guard can facilitate climbing, which is what Ontario's no-climb rule targets. The 2024 Ontario Building Code, section 9.8.8.6(1) as replaced for Ontario, states that every required guard must be designed so that no member, attachment or opening located between 140 mm and 900 mm above the walking surface will facilitate climbing. Horizontal cables running between those heights are what that rule targets.

This is an Ontario-specific rule. The national version of the Code limits the no-climb requirement to guards more than 4.2 m above the level below. Ontario replaced that provision so the no-climb rule applies to every required guard, regardless of height above grade. A guard is required wherever the walking surface is more than 600 mm above the adjacent surface within 1.2 m of the edge, per section 9.8.8.1(1).

What this means for your deck

If a guard is required at that location, check any infill between 140 mm and 900 mm against that wording and confirm the design with the City. Any manufactured or pre-engineered guard system that falls outside the Code's prescriptive rules requires the manufacturer's information and attachment details to be submitted with the building permit application, as the City of Ottawa's permit requirements set out.

Guard height also matters here. For an exterior guard serving not more than one dwelling unit, the minimum is 900 mm where the walking surface is not more than 1 800 mm above finished ground level, and 1 070 mm in all other cases, per section 9.8.8.3. Openings through the guard must prevent the passage of a 100 mm sphere, and the triangle formed by the riser, tread and bottom rail on a stair guard must prevent the passage of a 150 mm sphere, per section 9.8.8.5.

If a builder or supplier says a horizontal cable guard meets the Ontario rule, ask them to point to the specific Code provision. The answer should reference section 9.8.8.6(1) as replaced for Ontario, not the national version of the rule.

Comparing guard quotes is easier on four points: what the footing or pile type is and how deep it goes, what board material and grade is specified, how the guards and stairs are detailed including infill style and height, and whether removal of an existing deck is included or priced separately.

Q3

What makes a deck guard climbable under Ontario rules?

Under Ontario's Building Code, a required guard is considered climbable if any member, attachment or opening located between 140 mm and 900 mm above the walking surface would facilitate climbing. That is the rule in section 9.8.8.6(1) of the 2024 Ontario Building Code, as replaced for Ontario, and it applies to every required guard on a residential deck.

The national version of that rule limits the no-climb requirement to guards more than 4.2 metres above the level below. Ontario removed that height threshold entirely. So on any required guard in Ontario, the same no-climb zone applies between 140 mm and 900 mm above the walking surface, whatever the deck's height.

What this means in practice

The rule is about members, attachments or openings in that zone that facilitate climbing. Two designs it speaks to directly:

- Horizontal rails running between posts within the 140 mm to 900 mm zone
- Cable infill installed horizontally within that zone

The 2024 Ontario Building Code wording is that no member, attachment or opening in that band will facilitate climbing, so check any design, including its attachment details, against it.
A few other numbers connect to this. Openings through a guard must prevent the passage of a 100 mm sphere, under section 9.8.8.5. On a stair guard, the triangle formed by the riser, tread and bottom rail must prevent the passage of a 150 mm sphere. Guard height is a separate question: exterior guards serving not more than one dwelling unit may be 900 mm high where the walking surface is not more than 1 800 mm above finished ground, and 1 070 mm in all other cases, under section 9.8.8.3.

For manufactured or glass guard systems that fall outside the Code's prescriptive rules, the City of Ottawa asks for the manufacturer's information and attachment details as part of the building permit application. The permit drawings must show the guard and handrail information on the elevations. Never assume a named product meets the no-climb requirement without checking the manufacturer's documentation against the 140 mm to 900 mm zone.

If you are unsure whether a guard design you have been quoted satisfies section 9.8.8.6(1), ask the City's Building Code Services or have the designer confirm it in writing before the permit is submitted. The City's framing inspection is at completion of structural framing and guards, and the final inspection at completion of the deck framing, stairs and guards.

The request form on this page sends your project details to Ottawa deck builders listed in the Ottawa Construction Network directory.

Q4

How is guard height measured on Ontario deck stairs?

On deck stairs in Ontario, guard height is measured vertically from the top of the guard down to an imaginary line drawn through the nosings of the treads below. That line, not the stringer or the tread surface directly beneath the guard post, is the reference point.

The 2024 Ontario Building Code sets the minimum guard height at 900 mm for exterior guards serving not more than one dwelling unit, where the walking surface served is not more than 1 800 mm above finished ground level. That 900 mm minimum applies to the stair guard as well, measured the way described above. If the deck surface itself is more than 1 800 mm above grade, the guard on the landing must be at least 1 070 mm, and guards on exterior stairs or landings more than 10 m above adjacent ground must be at least 1 500 mm.

A few other Code rules matter just as much as the height:

- Openings through the guard must prevent the passage of a 100 mm sphere. On a stair guard specifically, the triangle formed by the riser, the tread and the bottom rail must also prevent the passage of a 150 mm sphere.
- The Code requires that no member, attachment or opening between 140 mm and 900 mm above the walking surface facilitates climbing. This is an Ontario-specific rule that applies to every required guard, including stair guards. Horizontal rails or cable infill running between those heights can facilitate climbing, which is what this rule targets.

The measurement method matters on a sloping stair: measure vertically from the nosing line, not from the tread directly under a post, and put the guard height in the drawings and the quote.
If your stair guard is part of a manufactured or pre-engineered system, glass panels for example, the City of Ottawa asks for the manufacturer's information and attachment details with the permit application. The Code's height and opening rules above still apply to it.

If your deck's walking surface is more than 600 mm (24 in.) above adjacent grade, or if the deck is raised and is the main way into the house, the City of Ottawa requires a building permit. The City's framing inspection is at completion of structural framing and guards, and the final inspection at completion of the deck framing, stairs and guards.

Disclaimer: This guide is provided for informational purposes only by Deck Builders Ottawa. It does not constitute professional advice. Always consult qualified contractors and your local building authority (the City of Ottawa's Building Code Services) before starting any deck project. Decks in Ottawa are built under the 2024 Ontario Building Code (O. Reg. 163/24) and the City's permit and zoning rules. Information is current as of November 15, 2026 and may change. Visit **deckbuildersottawa.ca** for the latest answers.